UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,929	03/05/2002	Robert H. Whidden	377.001	7077

23598 7590 07/26/2004

BOYLE FREDRICKSON NEWHOLM STEIN & GRATZ, S.C.
250 E. WISCONSIN AVENUE
SUITE 1030
MILWAUKEE, WI 53202

EXAMINER	
NGUYEN, CHAU N	

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/091,929	WHIDDEN, ROBERT H.	
	Examiner	Art Unit	
	Chau N Nguyen	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 17-19* is/are rejected.

7)☒ Claim(s) *16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: claim 10 should be changed to depend on claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined

under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Grant et al. (6,169,251).

Grant et al. discloses a conduit comprising a plurality of conductors (4), each conductor of a predetermined length and including a wire having insulation wrapped thereabout, a flexible inner jacket (3) having an inner surface defining a passageway for housing the conductors and an outer surface, tubular core extending about the outer surface of the inner jacket and having an outer surface, a braiding wound about the outer surface of the core (col. 3, lines 57-65), the braiding having first and second opposite ends, and a flexible outer jacket (1) extending about the braiding (re claim 1). Noted that the cable of Grant et al. can be used for transmission of electrical power, in which the conductors are electrically connected between a power source and a target, since the cable of Grant et al. comprises structure and material as claimed.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by LaPidus et al. (6,362,432).

LaPidus et al. discloses a conduit for transmission of electrical power, comprising a plurality of conductors (12), each conductor of a predetermined length and including a wire having insulation wrapped thereabout, a flexible inner jacket (30) having an inner surface defining a passageway for housing the conductors and an outer surface, tubular core extending about the outer surface of the inner jacket and having an outer surface, a braiding wound about the outer surface of the core (col. 5, lines 11-14), the braiding having first and second opposite ends, and a flexible outer jacket (38) extending about the braiding (re claim 1). LaPidus et al. also discloses the cable comprising a ground wire (24) within the inner jacket (re claim 2), the ground wire extending along the length of at least one of the conductors (re claim 4).

5. Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Dzurak (4,754,102).

Dzurak discloses a conduit connected between a source and a target, the source and the target having terminals and neutral points, comprising a conductor (40) having a length for operatively connecting the terminal (22) of the source and the terminal (26) of the target, and a braiding (38) extending about the conductor for operatively connecting the neutral point (24) of the source and the neutral point

(28) of the target. Noted that the cable of Dzurak can be used for transmission of electrical power since the cable of Dzurak comprises structure and material as claimed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over LaPidus et al. in view of Foster et al. (4,091,291).

Claim 3 additionally recites the ground wire being wrapped around the insulation of at least one of the conductors. Foster et al. discloses a cable comprising ground wire (37) which is wrapped around the insulation of the conductor. it would have been obvious to one skilled in the art to wrap the ground wire of LaPidus et al. around the insulation of at least one of the conductor such that the ground wire is supported by the insulation as taught by Foster et al.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaPidus et al. in view of DeForest, Jr. et al. (6,452,102).

Claims 5 and 6 additionally recite the first and second end portions of the braiding extending through the outer jacket of the conduit and first and second connectors mounted on the core adjacent corresponding ends of the outer jacket. DeForest, Jr. et al. discloses a conduit comprising a braiding having first and second end portions extending through an outer jacket of the conduit and first and second connectors (only one shown in Figure 1) mounted on a core adjacent corresponding ends of the outer jacket. It would have been obvious to one skilled in the art to use the connectors as taught by DeForest, Jr. et al. in the conduit of LaPidus et al. to provide electrical connection between the conduit and other electrical components.

9. Claims 7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaPidus et al. in view of Takahashi (JP3-119610).

LaPidus et al. discloses a conduit comprising a conductor having a length, a braiding (32) extending about the conductor (re claim 7). LaPidus et al. also discloses a hollow core (34) defining a passageway, the conductor extending through the passageway in the core (re claim 9), a flexible inner jacket (30)

positioned between the conductor and the core, and a flexible outer jacket (38) extending about the braiding (re claim 10), the braiding separating the outer jacket from the core (re claim 11), the braiding including first and second end portions extending through the outer jacket (re claim 12), and a ground wire along the length of the conductor (re claim 13).

LaPidus et al. does not specifically discloses the conduit carrying electrical power from a power source to a target, the power source and the target having terminals and neutral points, wherein the conductor connects the terminal of the power source and the terminal of the target, and wherein the braiding connects the neutral point of the power source to the neutral point of the target (re claim 7). Takahashi discloses a conduit carrying electrical power from a power source to a target, the power source and the target having terminals and neutral points, wherein the conductor connects the terminal of the power source and the terminal of the target, and wherein the braiding connects the neutral point of the power source to the neutral point of the target (Fig. 1). It would have been obvious to one skilled in the art to connect the conduit of LaPidus et al. between a power source and a target according to the teaching of Takahashi to provide power to the target.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over LaPidus et al. in view of Takahashi as applied to claim 13 above, and further in view of Foster et al.

Claim 14 additionally recites the ground wire being wrapped around the insulation of at least one of the conductors. Foster et al. discloses a cable comprising ground wire (37) which is wrapped around the insulation of the conductor. it would have been obvious to one skilled in the art to wrap the ground wire of LaPidus et al. around the insulation of at least one of the conductor such that the ground wire is supported by the insulation as taught by Foster et al.

11. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Grant et al.

Takahashi discloses a conduit for carrying three phase electrical power from a power source to a target, the power source having terminals corresponding to each phase of the electrical power, a neutral point and a ground terminal and the target having terminals corresponding to each phase of the electrical power and a ground terminal, the conduit comprising a first conductor having a first end connectable to a first terminal of the power source and a second end connectable to the first terminal of the target, a second conductor having a first end connectable to

a second terminal of the power source and a second end connectable to the second terminal of the target, a third conductor having a first end connectable to a third terminal of the power source and a second end connectable to the third terminal of the target, and a conductive sleeve (4) having a first end portion connectable to the neutral point of the power source and a second end portion connectable to the neutral point of the target.

Takahashi does not disclose a shield extending about the conductors nor the conductive sleeve (4) being a braiding (re claim 15). Grant et al. discloses a conduit comprising a shield extending about a plurality of conductors, a braiding extending about the shield (col. 3, lines 57-65), a flexible inner jacket (3) positioned between the conductors and the shield, and a flexible outer jacket (1) about the braiding (re claim 17). It would have been obvious to one skilled in the art to provide the shield as taught by Grant et al. in the conduit of Takahashi to improve the shielding in the conduit. It would also have been obvious to one skilled in the art to modify the conductive sleeve (4) of Takahashi to be a braiding as taught by Grant et al. to provide the cable with flexibility. It would have been obvious to one skilled in the art to provide inner and outer jackets as taught by Grant et al. in the conduit of Takahashi to further protect the cable core from the environment.

12. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Grant et al. as applied to claim 15 above, and further in view of DeForest, Jr. et al.

Claims 18 and 19 additionally recite the first and second end portions of the braiding extending through the outer jacket of the conduit and first and second connectors mounted on the core adjacent corresponding ends of the outer jacket. DeForest, Jr. et al. discloses a conduit comprising a braiding having first and second end portions extending through an outer jacket of the conduit and first and second connectors (only one shown in Figure 1) mounted on a core adjacent corresponding ends of the outer jacket. It would have been obvious to one skilled in the art to use the connectors as taught by DeForest, Jr. et al. in the conduit of Takahashi to provide electrical connection between the conduit and other electrical components.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214

USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 7-9, 13 and 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 and 10 of copending Application No. 10/379,206 (Whidden, 2003/0168229). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter of claims 7-9, 13 and 14 in the instant application is disclosed by claims 9 and 10 of Whidden.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

15. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Cited Art

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Scarpino, Groegl et al. and Paniri et al. disclose conduits for carrying power.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau N Nguyen
Primary Examiner
Art Unit 2831